



































































# 

Part No.: 1730792 Rev. 03/2008

TP 400-2442-01-AT-SMA

# Attachment Illustrated Parts List







# **Attachment**

Mfg. No. Description

Catcher, Clean Sweep Twin, 34"

# **Simplicity**

MANUFACTURING, INC. 500 N. Spring Street / PO Box 997 Port Washington, WI 53074-0997 USA

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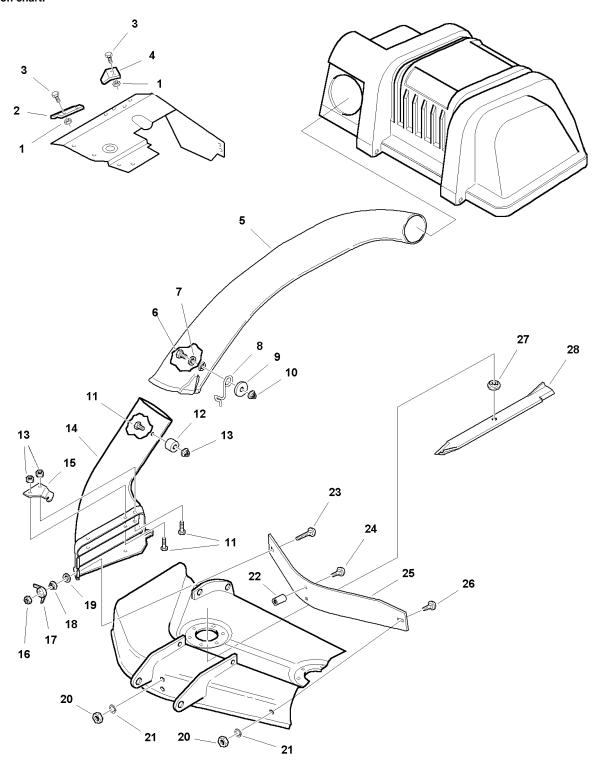
LAWN & GARDEN EQUIPMENT





| PRODUCT COMPONENTS          | PAGES             |
|-----------------------------|-------------------|
| Adapter, Blade & Tube Group | 4                 |
| Cover & Bag Group - Twin    | 6                 |
| Hitch Group                 | 8                 |
| Torque Specification Chart  | Inside Back Cover |

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Mfg. Nos.:

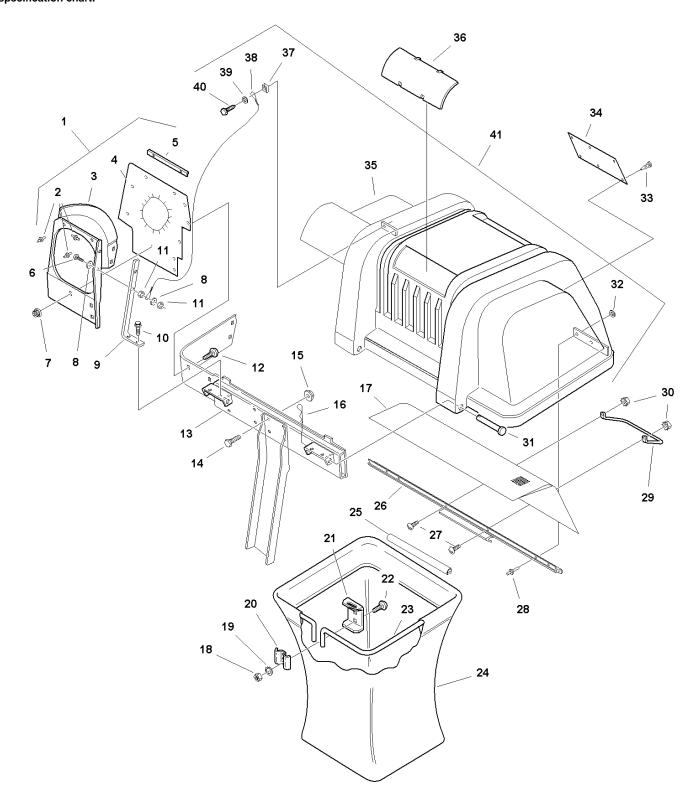
# Adapter, Blade & Tube Group

| Adapter, Blade & Tube Group |            |      |                                       |  |  |
|-----------------------------|------------|------|---------------------------------------|--|--|
| <b>REF NO</b>               | PART NO.   | QTY. | DESCRIPTION                           |  |  |
| 1                           | 1928919SM  | 4    | NUT, Hex Washer Assembly, Hex, #10-32 |  |  |
| 2                           | 1713286ASM | 1    | EXHAUST SHIELD, Front                 |  |  |
| 3                           | 1930531SM  | 4    | SCREW, Truss Head, 10-32 x 1/2        |  |  |
| 4                           | 1713287ASM | 1    | EXHAUST SHIELD, Rear                  |  |  |
| 5                           | 1703769SM  | 1    | TUBE, Transfer                        |  |  |
| 6                           | 1960122SM  | 1    | CAPSCREW, Hex Head, 5/16-18 x 3/4     |  |  |
| 7                           | 1919326SM  | 1    | WASHER, Flat, 5/16                    |  |  |
| 8                           | 1704603SM  | 1    | LATCH, Tube                           |  |  |
| 9                           | 1960185SM  | 1    | WASHER, Flat, 5/16                    |  |  |
| 10                          | 1935048SM  | 1    | NUT, Flange Lock, 5/16-18             |  |  |
| 11                          | 1960371SM  | 3    | CAPSCREW, Hex Head, 5/16-18 x 3/4     |  |  |
| 12                          | 1704341SM  | 1    | WASHER, Special                       |  |  |
| 13                          | 1919438SM  | 3    | LOCKNUT, Hex, 5/16-18                 |  |  |
| 14                          | 1709135SM  | 1    | ADAPTER                               |  |  |
| 15                          | 1704355ASM | 1    | BRACKET, Attachment                   |  |  |
| 16                          | 1928698SM  | 1    | NUT, Centerlock, 5/16-18              |  |  |
| 17                          | 1679163SM  | 1    | WING NUT ASSEMBLY 5/16                |  |  |
| 18                          | 1927557SM  | 1    | NUT, Hex Flange, 5/16-18              |  |  |
| 19                          | 1679164ASM | 1    | CUP                                   |  |  |
| 20                          | 1917372SM  | 3    | NUT, Hex, 5/16-18                     |  |  |
| 21                          | 1917356SM  | 3    | LOCKWASHER, 5/16                      |  |  |
| 22                          | 1674669SM  | 2    | SPACER                                |  |  |
| 23                          | 1960273SM  | 1    | CARRIAGE BOLT, 5/16-18 x 2-1/4        |  |  |
| 24                          | 1931338SM  | 2    | CARRIAGE BOLT, 5/16-18 x 1-3/4        |  |  |
| 25                          | 1709112A   | 1    | BAFFLE                                |  |  |
| 26                          | 1931332SM  | 1    | CARRIAGE BOLT, 5/16-18 x 5/8          |  |  |
| 27                          | 1705010SM  | 1    | ADAPTER, Blade, High Lift             |  |  |
| 28                          | 1706739ASM | 1    | BLADE, High Lift                      |  |  |
|                             |            |      |                                       |  |  |

### **Footnotes**

The above parts group applies to the following Mfg. Nos.:

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Mfg. Nos.:

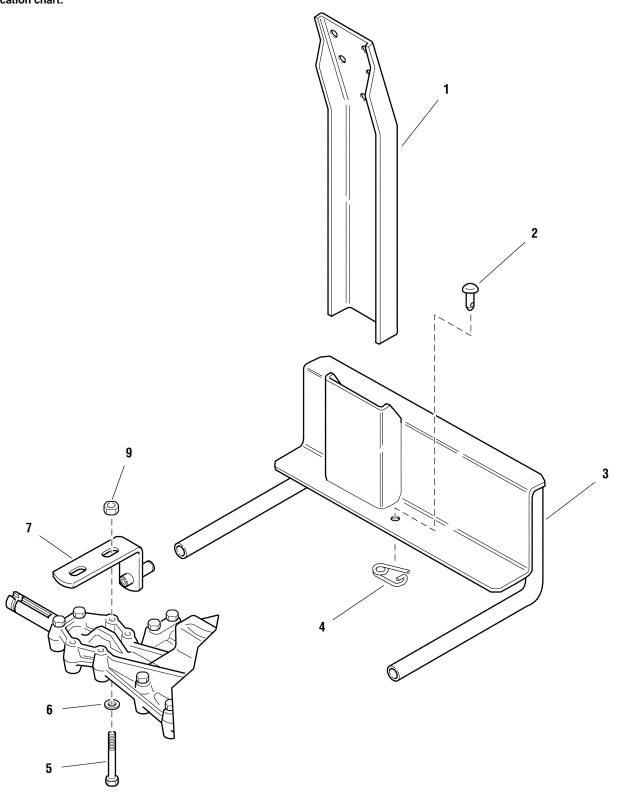
# Cover & Bag Group - Twin

| Cover & Bag Group - Twin |            |      |  |  |  |  |
|--------------------------|------------|------|--|--|--|--|
| <b>REF NO</b>            | PART NO.   | QTY. | DESCRIPTION  |  |  |  |
| 1                        | 1704615SM  | 1    | TUBE ASSEMBLY Support (Incl. Ref. Nos. 2, 3, 4, 5, 6, 8, 9 & 11) |  |  |  |
| 2                        | 1960381SM  | 7    | RIVET, Pop   |  |  |  |
| 3                        | 1704075SM  | 1    | SUPPORT, Tube  |  |  |  |
| 4                        | 1704135SM  | 1    | SEAL, Cover  |  |  |  |
| 5                        | 1704508SM  | 3    | BRACKET, Seal  |  |  |  |
| 6                        | 1960399SM  | 1    | SCREW, Round Head, #8-32 x 7/8                                   |  |  |  |
| 7                        | 1930642SM  | 5    | LOCKNUT, Flange, 1/4-20  |  |  |  |
| 8                        | 1960096SM  | 2    | WASHER   |  |  |  |
| 9                        | 1704507SM  | 1    | STRAP, Tube Support  |  |  |  |
| 10                       | 1929000SM  | 2    | SCREW, Taptite, 1/4-20 x 3/8                                     |  |  |  |
| 11                       | 1960077SM  | 2    | NUT, Hex, Lock, #8-32  |  |  |  |
| 12                       | 1960252SM  | 5    | CARRIAGE BOLT, 1/4-20 x 5/8                                      |  |  |  |
| 13                       | 1727129ASM | 1    | CROSS ASSEMBLY   |  |  |  |
| 13                       | 1727129ASM | 1    | CROSS ASSEMBLY   |  |  |  |
| 14                       | 1921966SM  | 4    | CAPSCREW, Hex Head, 3/8-16 x 7/8                                 |  |  |  |
| 15                       | 1928352SM  | 4    | NUT, Hex, Whizlock, 3/8-16                                       |  |  |  |
| 16                       | 1960221SM  | 2    | CLIP, Hairpin  |  |  |  |
| 17                       | 1703700SM  | 1    | SCREEN   |  |  |  |
| 18                       | 1917372SM  | 4    | NUT, Hex, 5/16-18  |  |  |  |
| 19                       | 1917356SM  | 4    | LOCKWASHER, 5/16   |  |  |  |
| 20                       | 1672023ASM | 2    | CLAMP  |  |  |  |
| 21                       | 1703807ASM | 2    | HANGER   |  |  |  |
| 22                       | 1931333SM  | 4    | CARRIAGE BOLT, 5/16-18 x 3/4                                     |  |  |  |
| 23                       | 1703855ASM | 2    | HOOP, Bag  |  |  |  |
| 24                       | 1703764SM  | 2    | BAG, Grass   |  |  |  |
| 25                       | 1675707SM  | 2    | TUBE CLIP, Grass Bag   |  |  |  |
| 26                       | 1704057SM  | 1    | SEAL, Clip   |  |  |  |
| 27                       | 1930531SM  | 2    | SCREW, Truss Head, #10-32 x 1/2                                  |  |  |  |
| 28                       | 1675043SM  | 4    | RIVET, Pop   |  |  |  |
| 29                       | 1703853SM  | 1    | HANDLE, Latch  |  |  |  |
| 30                       | 1928919SM  | 2    | NUT, Hex, #10-32   |  |  |  |
| 31                       | 2860367SM  | 2    | PIN, Round Head  |  |  |  |
| 32                       | 1910531SM  | 4    | WASHER   |  |  |  |
| 33                       | 1667248SM  | 6    | CLIP, Canoe  |  |  |  |
| 34                       | 1732820SM  | 1    | DECAL, Safety  |  |  |  |
| 35                       | 1704056SM  | 1    | COVER  |  |  |  |
| 36                       | 1704180SM  | 2    | WINDOW   |  |  |  |
| 37                       | 1933886SM  | 1    | NUT, Speed   |  |  |  |
| 38                       | 1705876SM  | 1    | CABLE, Double Loop   |  |  |  |
| 39                       | 1921319SM  | 1    | WASHER, 1/4  |  |  |  |
| 40                       | 1960400SM  | 1    | SCREW, Self-tapping, #10-12 x 5/8                                |  |  |  |
| 41                       | 1704056SM  | 1    | COVER ASSEMBLY (Incl. Ref. Nos. 17, 26, 28, 32, 37, 38, 39 & 40) |  |  |  |

## **Footnotes**

The above parts group applies to the following Mfg. Nos.:

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.



The above parts group applies to the following Mfg. Nos.:

# **Hitch Group**

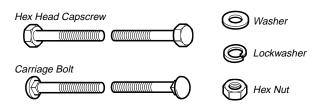
| REF NO | PART NO.   | QTY. | DESCRIPTION                          |
|--------|------------|------|--------------------------------------|
| 1      | 1709111ASM | 1    | SUPPORT, Catcher                     |
| 2      | 2102004SM  | 1    | PIN, Round Head, Drilled             |
| 3      | 1709022ASM | 1    | SUPPORT ASSEMBLY                     |
| 4      | 2176012SM  | 1    | CLIP, Pin, Safety                    |
| 5      | 1960590SM  | 4    | CAPSCREW, Hex Head, 5/16-18 x 3      |
| 6      | 1919326SM  | 8    | WASHER, Plain 5/16                   |
| 7      | 1709026ASM | 2    | ANCHOR ASSEMBLY, Older Models        |
| 7      | 1726975ASM | 2    | ANCHOR ASSEMBLY, Newer Models        |
| 9      | 1935048SM  | 4    | NUT, Hex Flange Two-Way Lock 5/16-18 |
|        |            |      |                                      |

## **Footnotes**

The above parts group applies to the following Mfg. Nos.:

# **Hardware Identification & Torque Specifications**

### **Common Hardware Types**

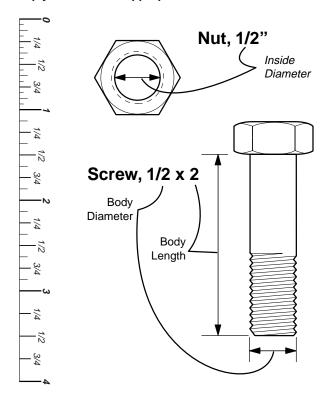


### Standard Hardware Sizing

When a washer or nut is identified as **1/2**", this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch; if a second number is present it represent the *threads per inch* 

When bolt or capscrew is identified as **1/2 - 16 x 2**", this means the *Nominal size*, or *body diameter* is 1/2 inch; the second number represents the *threads per inch* (16 in this example, and the final number is the *body length* of the bolt or screw (in this example 2 inches long).

The guides and ruler furnished below are designed to help you select the appropriate hardware and tools.



# **Torque Specification Chart**

FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)

| Hardware<br>Grade   | No<br>Marks<br>SAE Grade 2 |       | SAE Grade 5      |       | SAE Grade 8      |         |
|---------------------|----------------------------|-------|------------------|-------|------------------|---------|
| Size Of<br>Hardware | in/lbs<br>ft/lbs           | Nm.   | in/lbs<br>ft/lbs | Nm.   | in/lbs<br>ft/lbs | Nm.     |
| 8-32                | 19                         | 2.1   | 30               | 3.4   | 41               | 4.6     |
| 8-36                | 20                         | 2.3   | 31               | 3.5   | 43               | 4.9     |
| 10-24               | 27                         | 3.1   | 43               | 4.9   | 60               | 6.8     |
| 10-32               | 31                         | 3.5   | 49               | 5.5   | 68               | 7.7     |
| 1/4-20              | 66                         | 7.6   | 8                | 10.9  | 12               | 16.3    |
| 1/4-28              | 76                         | 8.6   | 10               | 13.6  | 14               | 19.0    |
| 5/16-18             | 11                         | 15.0  | 17               | 23.1  | 25               | 34.0    |
| 5/16-24             | 12                         | 16.3  | 19               | 25.8  | 27               | 34.0    |
| 3/8-16              | 20                         | 27.2  | 30               | 40.8  | 45               | 61.2    |
| 3/8-24              | 23                         | 31.3  | 35               | 47.6  | 50               | 68.0    |
| 7/16-14             | 30                         | 40.8  | 50               | 68.0  | 70               | 95.2    |
| 7/16-20             | 35                         | 47.6  | 55               | 74.8  | 80               | 108.8   |
| 1/2-13              | 50                         | 68.0  | 75               | 102.0 | 110              | 149.6   |
| 1/2-20              | 55                         | 74.8  | 90               | 122.4 | 120              | 163.2   |
| 9/16-12             | 65                         | 88.4  | 110              | 149.6 | 150              | 204.0   |
| 9/16-18             | 75                         | 102.0 | 120              | 163.2 | 170              | 231.2   |
| 5/8-11              | 90                         | 122.4 | 150              | 204.0 | 220              | 299.2   |
| 5/8-18              | 100                        | 136   | 180              | 244.8 | 240              | 326.4   |
| 3/4-10              | 160                        | 217.6 | 260              | 353.6 | 386              | 525.0   |
| 3/4-16              | 180                        | 244.8 | 300              | 408.0 | 420              | 571.2   |
| 7/8-9               | 140                        | 190.4 | 400              | 544.0 | 600              | 816.0   |
| 7/8-14              | 155                        | 210.8 | 440              | 598.4 | 660              | 897.6   |
| 1-8                 | 220                        | 299.2 | 580              | 788.8 | 900              | 1,244.0 |
| 1-12                | 240                        | 326.4 | 640              | 870.4 | 1,000            | 1,360.0 |

### **NOTES**

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- 2. Recommended seating torque values for locknuts:
  - a. for prevailing torque locknuts use 65% of grade 5 torques.
  - for flange whizlock nuts and screws use 135% of grade 5 torques.
- 3. Unless otherwise noted on assembly drawings, all torque values must meet this specification.

### **Wrench & Fastener Size Guide**



**1/4" Bolt or Nut** Wrench—7/16"



5/16" Bolt or Nut Wrench—1/2"



3/8" Bolt or Nut Wrench—9/16"



**7/16" Bolt or Nut**Wrench (Bolt)—5/8"
Wrench (Nut)—11/16"



1/2" Bolt or Nut Wrench—3/4"